CLAIMS:

1. A method to identify sub-regions of a multi-channel image as containing red-eye comprising:

(a) converting said multi-channel image to a modified multi-channel image wherein at least one of said channels is an enhanced luminance channel that has more than 60% of the luminance information of said multi-channel image; and

(b) identifying a sub-region of said image as containing a red-eye region based upon, at least in part, processing said enhanced luminance channel.

2. The method of claim 1 wherein said multi-channel image has red, green, and blue channels.

3. The method of claim 2 wherein said modified multi-channel image has hue, saturation, and intensity channels.

4. The method of claim 3 wherein saturation is the relative bandwidth of the visible output from a light source.

5. The method of claim 4 wherein said hue is substantially the wavelength within the visible-light spectrum at which the energy output from a source is the greatest.

6. The method of claim 1 wherein each channel of said multi-channel image is processed differently to identify said sub-region of said image.

7. A method to identify sub-regions of a multi-channel image containing red-eye comprising:

(a) providing said multi-channel image wherein at least one of said channels has more than 60% of the luminance information of said multi-channel image; and

(b) identifying a sub-region of said image as containing a red-eye region based upon, at least in part, processing said channel containing said luminance information.

8. The method of claim 7 wherein said modified multi-channel image has hue, saturation, and intensity channels.

9. The method of claim 8 wherein saturation is the relative bandwidth of the visible output from a light source.

10. The method of claim 9 wherein said hue is substantially the wavelength within the visible-light spectrum at which the energy output from a source is the greatest.

11. The method of claim 7 wherein each channel of said multi-channel image is processed differently to identify said sub-region of said image.

12. A method to identify sub-regions of a multi-channel image containing red-eye comprising:

(a) identifying a sub-region of said image as containing a red-eye region based upon, at least in part, different processing each of said channels of said multi-channel image.

13. A method to identify sub-regions of a multi-channel image containing red-eye comprising:

(a) providing said multi-channel image wherein at least one of said channels has more than 60% of the luminance information of said multi-channel image;

(b) identifying a sub-region of said image as containing a red-eye region based upon, at least in part, processing said channel containing said luminance information; and

(c) identifying said sub-region of said image as containing a red-eye region based upon, at least in part, processing another one of said multi-channel image.

14. The method of claim 13 wherein said identifying based upon said luminance information includes thresholding said luminance information.

15. The method of claim 14 wherein the result of said thresholding is a first mask.

16. The method of claim 14 wherein the value for said thresholding is based upon said image.

17. The method of claim 15 further comprising reducing the number of isolated pixels indicated within said image as a red-eye region.

18. The method of claim 17 further comprising using a convex hull technique to identify contiguous regions.

19. The method of claim 18 wherein contiguous regions of insufficient size are removed as potential red-eye regions.

20. A method to identify sub-regions of a multi-channel image containing red-eye comprising:

(a) providing said multi-channel image wherein at least one of said channels substantially includes the hue of said image; and

(b) identifying a sub-region of said image as containing a red-eye region based upon, at least in part, processing said channel that substantially includes said hue.

21. The method of claim 20 wherein said red-eye region is based upon identifying a lighter region generally surrounded by a darker region.

22. The method of claim 20 wherein said sub-region is identified based upon at least one of (1) its area, (2) is aspect ratio, and (3) its extent.

23. A method to identify sub-regions of a multi-channel image containing red-eye comprising:

(a) providing said multi-channel image wherein at least one of said channels substantially includes the saturation of said image; and

(b) identifying a sub-region of said image as containing a red-eye region based upon, at least in part, processing said channel that substantially includes said saturation.

24. The method of claim 23 wherein said re-eye region is based upon identifying location variations in said saturation.

25. The method of claim 24 wherein said location variations is based upon a statistical measure.

26. The method of claim 25 wherein said statistical measure is a standard deviation.